

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) Method for handling a data object that is to be transmitted over a link ~~(39,40, 41,42)~~ within a packet communication network, said data object being divided into at one least data unit, ~~characterised by comprising the steps of:~~

assigning a buffer for storing said data unit to be transmitted over said link;

assigning at least one buffer threshold level for said assigned buffer;

determining a current buffer fill level for said buffer; and

—handling the data unit that is in turn to be transmitted over the link ~~(39,40, 41,42)~~, differently depending on where a buffer said buffer fill level for said buffer in a buffer ~~(33,34, 35,36, 37, 38)~~ preceding the link ~~(39,40, 41,42)~~ is in relation to said at least one buffer threshold level ~~(51,52, 53,54, 55,56, 57, 58, 59)~~ in order to minimise end-to-end delay.

2. (Currently Amended) Method according to claim 1, ~~characterized by using a more secure link, e. g. by~~ wherein said step of handling the data unit further comprises the step of using a coding scheme for security coding of the data unit giving higher security for the link, if the buffer fill level is below the at least one buffer threshold level ~~(51,52, 53,54, 55,56, 57,58, 59)~~, than if the buffer fill level is above said at least one buffer threshold level ~~(51,52, 53,54, 55,56, 57,58, 59)~~.

3. (Currently Amended) Method according to ~~any of the claims 1 or 2,~~ characterized by claim 1, further comprising the step of using coding schemes for security coding of the data unit giving higher security when the radio quality is worse than at least one radio quality threshold, than when the radio quality is better than said at least one radio quality threshold.

4. (Currently Amended) Method according to ~~any of the claims 1 to 3,~~ characterized by claim 1, receiving acknowledgement more often, by e. g. further comprising the step of polling more often for acknowledgement, when the buffer fill level is below the at least one buffer threshold level (51,52, 53,54, 55,56, 57,58, 59) than when the buffer fill level is above the at least one buffer threshold level (51,52, 53,54, 55,56, 57,58, 59).

5. (Currently Amended) Method according to ~~any of the claims 1 to 4,~~ characterized by claim 1, further comprising the step of giving a higher priority for the data units using said buffer compared to other data units sharing the same link, when the buffer fill level is below the at least one buffer threshold level (51,52, 53,54, 55, 56,57, 58,59) than when the buffer fill level is above the at least one buffer threshold level (51,52, 53,54, 55,56, 57, 58,59).

6. (Currently Amended) Method according to ~~any of the claims 1 to 5,~~ characterized by claim 1, further comprising the step of using incremental redundancy for the transmission only when the buffer fill level is above the at least one buffer threshold level (51,52, 53,54, 55, 56,57, 58,59), when the method is used in an EDGE Based GPRS (EGPRS) system.

7. (Currently Amended) Method according to ~~any of the claims 1 to 6,~~ characterized by claim 1, further comprising the steps of:

moving the upper part of the buffer above at least one threshold to another buffer ; and

by treating the lower remaining part of the buffer below the at least one threshold as if the upper part had moved, already before the actual moving has taken place.

8. (Currently Amended) ~~Unit~~ A packet communication system arranged to handle a data object that is to be transmitted over a link ~~(39,40, 41,42),~~ said data object being divided into at one least data unit, characterised in that comprising:

a buffer for storing said at least data unit to be transmitted over said link wherein said buffer is assigned with at least one buffer threshold level;

a processor unit for handling the unit is arranged to handle the data unit that is in turn to be transmitted over the link (39,40, 41,42) , wherein said processor unit further determines a buffer fill level associated with said buffer and handles said data unit differently depending on where a buffer said buffer fill level in said buffer a buffer (33,34, 35,36, 37,38) preceding the link (39,40, 41,42) is in relation to said at least one buffer threshold level (51, 52,53, 54,55, 56,57, 58, 59) in order to minimise end-to-end delay.

9. (Currently Amended) Unit according to claim 8, ~~characterized in that wherein~~ the unit is arranged to using a more secure link, ~~e. g. by using a coding scheme for security coding of the data unit giving higher security, if the buffer fill level is below the at least one buffer threshold level (51,52, 53,54, 55, 56,57, 58,59), then if the buffer fill level is above said at least one buffer threshold level (51,52, 53,54, 55,56, 57, 58,59).~~

10. (Currently Amended) Unit according to ~~any of the claims 8 or 9~~ claim 8, ~~characterized in that wherein~~ the unit is arranged to use coding schemes for security coding of the data unit giving higher security when the radio quality is worse than at least one radio quality threshold, than when the radio quality is better than said at least one radio quality threshold.

11. (Currently Amended) Unit according to ~~any of the claims 8 to 10~~ claim 8, ~~characterized by in that the unit is arranged to receiving acknowledgement more often, e. g. by polling poll for acknowledgement more often often,~~ when the buffer fill level is below the at least one buffer threshold level (51,52, 53,54, 55, 56,57, 58, 59) than when the buffer fill level is above the at least one buffer threshold level (51,52, 53,54, 55,56, 57, 58,59).

12. (Currently Amended) Unit according to ~~any of the claims 8 to 11~~ claim 8, ~~characterized in that wherein~~ the unit is arranged to give a higher priority for the data

units using said buffer compared to other data units sharing the same link, when the buffer fill level is below the at least one buffer threshold level ~~(51,52, 53,54, 55,56, 57,58, 59)~~ than when the buffer fill level is above the at least one buffer threshold level ~~(51, 52,53, 54,55, 56,57, 58,59)~~.

13. (Currently Amended) Unit according to ~~any of the claims 8 to 12~~ claim 8, ~~characterized in that wherein~~ the unit is arranged to move the upper part of the buffer above at least one threshold to another buffer; and arranged to treat the lower remaining part of the buffer below the at least one threshold as if the upper part had moved, already before the actual moving has taken place.

14. (Currently Amended) Unit in an EDGE Based GPRS (EGRPS) ~~EGPRS~~ system according to ~~any of the claims 8 to 13~~ claim 8, ~~characterized in that wherein~~ the unit is arranged to use incremental redundancy for the transmission only when the buffer fill level is above the at least one buffer threshold level ~~(51,52, 53,54, 55,56, 57,58, 59)~~.

15. (Currently Amended) Unit in a GPRS or an EGPRS system according to ~~any of the claims 8 to 14~~ claim 8, ~~characterized in that wherein~~ the buffer ~~(33,34, 35,36, 37,38)~~ is a mobile station (MS) or packet control unit (PCU) buffer ~~MS buffer or PCF buffer~~.

16. (Currently Amended) Unit in a GPRS or an EGPRS system according to ~~any of the claims 8 to 15~~ claim 8, ~~characterized in that wherein~~ the unit is a base station, a base station controller, or a serving GPRS support node ~~or similar~~.

17. (Currently Amended) Unit in a UMTS system according to ~~any of the claims 8 to 15~~ claim 8, ~~characterized in that wherein~~ the unit is a radio network controller.